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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/929,722	08/14/2001	James M. Zavislan	ML-0473C	1148

7590 07/31/2002

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EXAMINER

FINEMAN, LEE A

ART UNIT PAPER NUMBER

2872

DATE MAILED: 07/31/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/929,722

Applicant(s)

ZAVISLAN, JAMES M.

Examiner

L e Fineman

Art Unit

2872

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 29 April 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 12-18 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 12-18 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____.

DETAILED ACTION

Terminal Disclaimer

1. The terminal disclaimers filed on 29 April 2002 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of U.S. Patent Nos. 6,134,010, 6,304,373, and 6,134,009 have been reviewed and are accepted. The terminal disclaimers have been recorded.

Specification

2. The disclosure is objected to because of the following informalities: Reference numerals ^{removed from drawings} 46, 56, 215, 221 and 220 and the element it designates are not described in the written description.

Appropriate correction is required.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

3. Claims 12 and 18 are rejected under 35 U.S.C. 102(b) as being anticipated by Okamoto, U.S. Patent No. 5,973,785.

In figures 1 and 20, Okamoto discloses a scanning confocal microscope for imaging a sample (2) comprising a means for producing a beam of light (1 and 4) which has two modes and

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wherein each mode has opposing phases, a beam splitter (15), means for focusing (5) and a means for detecting the returned light (detector, as shown in figure 20) and the beam of light is focused at two spots (one spot being that of the first mode and the other spot being that of the second mode) to cause destructive interference around the periphery of the small focused spot which improves the contrast of the image due to the reduction in size of the focused point of light. See column 15, line 45 to column 16, line 28. Note: Although Okamoto discloses an optical system of confocal type, in figure 20 Okamoto fails to specify the optical components which make up the optical system. It is noted by the Examiner that it is an inherent characteristic within the art of confocal microscopes to place an aperture in front of the detector, as set forth in the claims.

With respect to claims 12 and 18, Okamoto discloses an imaging system having first and second modes of light which formed into spots that are in an opposing phase relationship, the spots overlap one another on the surface of the sample as well as at a position or site ahead of the surface sample (i.e. prior to illuminating the sample).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claim 13 is rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto in view of Official Notice.

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In figure 20, Okamoto discloses a confocal scanning microscope as described above but fails to teach the objective lens (5) to be capable of moving up and down in the z-direction.

Official Notice is taken that it is well known in the art to move the objective lens up and down in the z-direction. Therefore it would have been obvious to one having ordinary skill in the art to move the objective lens up and down to enable the microscope to focus light.

5. Claims 14-17 are rejected under 35 U.S.C. 103(a) as being unpatentable over Okamoto in view of Hill U.S. Patent No. 5,760,901.

In figure 20 Okamoto discloses a confocal scanning microscope as described above but fails to teach a reference arm. In figure 1a, Hill discloses a confocal interference microscope comprising a reference arm (light directed to mirror 120). Therefore it would have been obvious to one of ordinary skill in the art to use a reference mirror which assumes the role of a reference arm for the purpose of enabling the user to more accurately treat the collected information from the sample.

Response to Arguments

6. It is noted by the Examiner that the previous objections made in the previous Office Action have been withdrawn due to amendment and persuasive arguments presented by the Applicant.

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Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lee Fineman whose telephone number is (703) 305-5414. The examiner can normally be reached on Monday - Friday 7:30 - 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Cassandra Spyrou can be reached on (703) 308-1687. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 308-7722 for regular communications and (703) 308-7722 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-4900.

LAF
July 19, 2002


Cassandra Spyrou
Supervisory Patent Examiner
Technology Center 2800